

In Memoriam Israel Gohberg (23.8.1928–12.10.2009)



Operator theory has lost one of its cornerstones, and the journal *Integral Equations and Operator Theory*, IEOT, has lost its founder when Israel Gohberg passed away on October 12, 2009. The gap that Israel Gohberg leaves in mathematics, and in the hearts of his friends and colleagues, cannot be measured on Earth. It is only surpassed by the sorrow in the hearts of his family, in particular, of his beloved wife Bella, his two daughters, his sister, and his grand-children. Time will not close this gap, it will make it more apparent.

The oeuvre of Israel Gohberg comprises more than 500 scientific publications, including more than 26 monographs many of which have become classics in mathematics. He published with 73 coauthors, supervised more than 40 PhD students and inspired countless mathematicians in the many places he worked at during his life, including Kisinev and Tel Aviv, and at the same time Stony Brook, the Weizman Institute, Calgary, Amsterdam, and Maryland. He was the world leading authority in integral equations, nonselfadjoint operators, spectral theory and factorization of matrix and operator functions, inversion problems for structured matrices, the band method, the state space method, and applications of operator theory in a wide range of areas, in particular, in systems theory and engineering.

But it is much more than just beautiful mathematics that we owe to Israel Gohberg. He founded two journals, *Matematicheskiye Issledovaniya* in Kisinev and, after emigrating to Israel in 1974, *Integral Equations and Operator Theory* in 1978; he created the series *Operator Theory: Advances and Applications* in 1980 reaching 200 volumes next year; he initiated the conference series *International Workshops on Operator Theory and its Applications*, IWOTA, which have grown ever since their start in 1981; he was heavily involved in the organization of the *International Symposia on the Mathematical Theory of Networks and Systems*, MTNS, to bring together engineers and mathematicians.

The great achievements of Israel Gohberg were appreciated by many prizes and academic awards. In 1970 he was elected Corresponding Member of the Academy of Sciences of the Moldavian SSR and in 1985 Foreign Member of the Royal Netherlands Academy of Arts and Sciences; he was awarded the Landau Prize (1976) and the Rothschild Prize (1986) in Mathematics, the Hans Schneider Prize by the International Linear Algebra Society (1993), an Alexander von Humboldt Prize by the German Humboldt Foundation (1992), the M.G. Krein Prize by the Ukrainian Academy of Sciences (2008), and honorary doctoral degrees by the Technische Hochschule Darmstadt (1997), Technische Universität Wien (2001), Universitatea de Vest din Timisoara (2002), Universitatea de Stat din Moldova, Cisinău (2002), Universitatea de Stat Aleco Russo din Balti, Moldova (2002), Technion, Israel Institute of Technology, Haifa (2008); and he was elected SIAM Fellow (2009).

These impressive facts and figures describe one of the most exceptional mathematicians of our time, but how to describe his wide and warm heart, his generosity as a friend, his unforgettable humour, and his extraordinary character and strength to overcome the most difficult times in life? It is impossible. We are left with tears in our eyes realizing what we have lost.

But Israel would not want us to be desperate. He would want us to strive for proving elegant mathematical theorems and finding simple examples and interesting applications for our theories, so that his legacy in operator theory grows and flourishes. When Israel suggested me as Editor of IEOT in 2008, I knew that he was entrusting me with something very precious to him. I promised him to do all my very best for the well-being of his journal. *Zichrono li'vracha* – may your memory be for a blessing, Israel.

Christiane Tretter (Editor of IEOT)